

REMARKS

The Office Action dated December 11, 2001, has been carefully considered. In response thereto, the present application has been amended in a manner which is believed to place it into consideration for allowance. Accordingly, reconsideration and withdrawal of all outstanding grounds of rejection and issuance of a Notice of Allowance are earnestly solicited in view of the foregoing amendments and the following remarks.

The Applicant hereby affirms the election of Group I, claims 1-56 and 61-82. Claims 57-59, drawn to a dynamic collimator, and claim 60, drawn to artifact removal, are withdrawn from consideration. The Applicant reserves the right to file one or more divisional applications directed to the non-elected groups of claims.

The Examiner rejects claims 1, 3, 4, 16, 20, 61, 62, 63, 67 and 81 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,292,531 to *Hsieh*; claims 2, 13-15, 17-19, 21-24, 64-66 and 68 under 35 U.S.C. §103(a) as obvious over *Hsieh*; and claims 5-12, 25-56, 69-78, 80 and 82 under 35 U.S.C. §103(a) as obvious over *Hsieh* in view of U.S. Patent No. 3,973,126 to *Redington et al.*

In response, claims 1-3, 13, 14, 19-21, 23-27, 37, 43, 44, 47, 48, 53-55, 61-69, 73-75, 77 and 80-82 have been canceled. The remaining rejected claims have been rewritten so as to be independent of the canceled claims. No new limitations have been introduced into any of the claims which have been retained. For the reasons set forth below, the Applicant respectfully submits that the claims remaining in the application are not anticipated by, and would not have been obvious over, the applied prior art.

Hsieh teaches the generation of three-dimensional mammography images through the use of a moving source of x-ray cone radiation and a movable detector array. The source and

detector array are typically moved linearly, although one of them may be rotated. The reference also teaches providing either one detector array or a pair, one for each breast.

Redington et al teaches a mammography machine in which the patient 10 lies on a horizontal table structure 12, with one breast 20 extending through an opening 18 in the table structure 12 into a fluid-filled container 22. An x-ray source 40 and a detector array 42 are rotated around the fluid container 22, and thus around the breast 20, to take tomographic images. The images are transmitted to a computer 46 for reconstruction. The source and detector may be moved vertically. No specific structures are taught for either rotating or vertically moving the source and the detector array.

However, the Office Action does not mention the following claim limitations which are not taught or suggested by the applied references: the taking of a scout projection image with a beam stop array (claims 15 and 49); the flat panel detector capable of detecting both static digital images and dynamic images (claims 16-18 and 50-52); the use of the non-zoom mode to remove streak artifacts from the image taken in the zoom mode (claims 22 and 56); communication with an external computer through a slip ring (claims 41 and 42); communication with the external computer through a computer on the gantry frame (claim 42); the breast holder for holding the breast in a cylindrical shape (claims 45 and 46); the piston for pushing the breast into the cylindrical shape (claim 46); the table with two breast holes (claims 70-72); the combination of such a table with the motion of the gantry to image both of the patient's breasts simultaneously (claim 71) or one of the patient's breasts at a time (claim 72); the support for supporting the breast while the patient is in a standing position (claim 76); and the dynamic change in the exposure level (claim 78). Therefore, the Applicant respectfully submits that the subject matter of those claims is patentable over the applied references.

Also, in response to the statements made in the Office Action as to which scanning geometries have been admitted to be known in the art, the Applicant respectfully requests to know where in the specification (preferably by page and line number) each of the geometries recited in claims 4-12, 28-36 and 79 has been admitted to be known.

Moreover, the Office Action alleges that the collimator leaves of claims 38-40 are known in the art, although the Office Action does not identify any such teaching in any reference of record. Such esoteric details of the art are not subject to official notice, but must instead be shown by citation of a reference. MPEP (8th Ed.) §2144.03. Therefore, the Applicant respectfully submits that such a reference be cited and applied or that the rejection of those claims be withdrawn.

Finally, the newly added claims depart further from the applied prior art. The limitation that the gantry is oriented to scan the breast while the patient is in a standing position distinguishes the invention further over *Redington et al.*, in which the patient is initially in a standing position but is lowered to a face-down position for the scan. Regarding the two halves of the breast holder, since the breast holder (the fluid-filled container 22) of *Redington et al.* must necessarily be watertight, the Applicant respectfully submits that *Redington et al.* teaches away from such a structure.

For the reasons set forth above, the Applicant respectfully submits that all outstanding grounds of rejection are overcome and respectfully requests issuance of a Notice of Allowance.

In the event that there are any questions relating to the present Amendment or to the application in general, it would be appreciated if the Examiner would telephone the undersigned at the telephone number set forth below concerning any such questions so that prosecution of the present application may be expedited.

Please charge any shortage of fees, or credit any overpayment thereof, to BLANK ROME COMISKY & McCUALEY LLP, Deposit Account No. 23-2185 (000687.00129). In the event that a petition for an extension of time either does not accompany the present Amendment or does not suffice to render the present Amendment timely, the Applicant respectfully petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render the present Amendment timely. Any fee due is authorized above.

Respectfully submitted,

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